Maryland — 2009

Forest Health Highlights

The Resource

Maryland occupies a land area of 6,255,800 acres. Forest land comprises 2,565,800 acres, of which nearly 76 percent is privately owned. Healthy, productive forests are critical in urban and rural areas for soil conservation, clean air and water, wildlife habitat, outdoor recreation, and aesthetics. The forest products industry is the largest employer in Allegany and Garrett Counties and the second largest employer on the Eastern Shore.

Forest Health Monitoring

The Forest Health Monitoring (FHM) Program has two components: plot network and off-plot survey. The U.S. Forest Service, Northern Research Station, Forest Inventory and Analysis Staff administer the plot network in Maryland. The plot network is designed to annually monitor, assess, and report on changes in the long-term condition of trees, soils, lichens, and air quality in forests.

The Maryland Department of Agriculture conducts the off-plot survey component of FHM. The objectives of the FHM Program are to delimit, map, and report forest pest problems as a supplement to the FHM plot network. Aerial and ground surveys, data collection, and reporting are conducted in accordance with FHM standards for air operations and GIS.

Forest Pest Issues

Gypsy Moth — Egg mass surveys conducted in the fall of 2008 indicated damaging infestation levels in many counties. In spring 2009, 32,722 acres were treated in the northeast, central, southern, and western areas of the State. Maryland experienced 295 acres of defoliation. Surveys indicate that treatments will decrease to about 500 acres in 2010.

Hardwood Defoliators — Orange striped oakworm, cherry scallop shell moth, beech bark disease, oak wilt, and frost caused damage to Maryland's forests.

2009 Maryland Forest Damage

Pest	Number Acres	Number Counties	Counties
Gypsy Moth Oak Mortality	4,631	9	GA, AL, WA, FR, CA, HO, BA, HA, AA
Gypsy Moth Defoliation	295	4	HO, BA, HA, CE
Beech Bark Disease Present	154,271	1	GA
Beech Bark Disease Beech Mortality	203	1	GA
Cherry Scallop Shell Moth Defoliation	60	1	BA
Frost Damage	7,902	1	GA
Orange Striped Oakworm Defoliation	44	1	WA

Bark Beetles — The **pine shoot beetle**, a European bark beetle, was the target of another USDA, APHIS-funded survey conducted in 14 Maryland counties. The pine shoot beetle was first found in western Maryland in 1995. Pine shoot beetles are now found in all five western Maryland Counties (Allegany, Frederick, Montgomery, Garrett, and Washington). Significantly more beetles were found in traps in 2009 than in previous years. A Federal quarantine restricts pine material moving from these counties. **Southern pine beetle** populations continue to remain low in the State, but populations usually build up to damaging levels on a 7- to 8-year cycle. The last outbreak ended in 1994.

Hemlock Woolly Adelgid (HWA) — HWA remains the major threat to the health of eastern hemlock. Infested hemlocks occur in the metropolitan area between Baltimore and Washington and in natural stands from Harford to Garrett Counties. As part of a mid-Atlantic multistate survey, 13 plots have been set up in six counties to assess the HWA impact on hemlock stands. The potential for HWA biological control by the predatory beetle *Laricobius nigrinus* was evaluated in Frederick City Watershed and in

Rocky Gap State Park in Allegany County during 2004. *Laricobius* was recovered from Rocky Gap in fall 2005. Recoveries since then indicate that the beetle is now established at that site. Additional releases have been made at Rocky Gap in an effort to establish a field insectary so that beetles can be harvested for movement to other areas.

Laricobius nigrinus was recovered from Rocky Gap in 2005, 2006, 2007, and 2009. The beetle release site in the Rocky Gap gorge has been declared an established population after recoveries in 2007. Recoveries have been so numerous that efforts have begun to establish a field insectary at Rocky Gap with the hopes of harvesting enough *L. nigrinus* in future years to release in other areas of the State. The beetles have also been recovered from a release site at the Fredrick City Watershed. More beetle releases were made in 2007 at Rocky Gap, Hagerstown watershed, Pretty Boy Reservoir, and Broad Creek Boy Scout Camp. In 2008, additional *L. nigrinus* releases were made at Rocky Gap, Broad Creek, Savage River State Forest, Frederick City Watershed, and Potomac State Forest. In 2009, additional *L. nigrinus* releases were made at Rocky Gap. Two other predatory beetle species, *Scymnus sinuanodulus* and *Sasajiscymnus tsugae*, were released at several different sites, with no recoveries made. Through 2009, 3,603 trees in priority sites have been soil injected and 512 were trunk injected with imidacloprid insecticide for control of HWA.

Special Issues

Emerald Ash Borer — Infested ash trees were found at a Maryland nursery in August 2003. Infested ash trees from Michigan were sent to the Maryland nursery in April 2003, and some of these trees were sold as part of the nursery's landscaping business. The remaining trees and other ash that became infested at the nursery were destroyed by MDA staff. MDA Plant Protection staff had traced forward ash trees sold by the Maryland nursery and removed most of these ash trees. Additionally, all ash trees within ½ mile of the infested nursery were cut and burned in early spring 2004. MDA Forest Pest Management and Plant Protection staff conducted visual surveys and monitored trap trees in areas that had infested ash trees. Plant Protection conducted a purple trap survey in many areas of the State. No EAB were caught outside of the infested area. Forest Pest Management staff set up 40 of the purple traps in Baltimore County. In August 2006, EAB larvae were found in trap trees near the original infestation. A large-scale detection and eradication project was initiated. Additional detections of EAB life forms in the area have forced the eradication zone to be expanded. The project is ongoing and has gone from eradication to containment. The result is that Prince Georges and Charles Counties are now quarantined for this insect.

Oak Wilt — Oak wilt was detected in two sites in Allegheny County.

For More Information

Maryland
Department of Natural Resources
Forest Service
Tawes State Office Building
580 Taylor Avenue
Annapolis, MD 21401-2397
Phone: (410) 260-8531
www.dnr.state.md.us/forests

Maryland
Department of Agriculture
Forest Pest Management
Wayne A. Cawley, Jr. Building
50 Harry S. Truman Parkway
Annapolis, MD 21401-8960
Phone: (410) 841-5922
www.mda.state.md.us/gen.info

USDA Forest Service
Northeastern Area
State and Private Forestry
Forest Health Protection
180 Canfield Street
Morgantown, WV 26505
Phone: (304) 285-1541
www.na.fs.fed.us/